Appendix B
List of Pending Claims

1. (Amended) A composition comprising an isolated polynucleotide encoding an amino-terminal-modified chemokine, wherein the amino-terminal-modified chemokine comprises at least one methionine, at least one aminooxypentane residue, or at least one GroHEK peptide covalently attached to the amino terminus of the chemokine, and wherein the chemokine is selected from the group consisting of SDF-1α, SDF-1β, IP-10, Mig, GROα, GROβ, GROγ, interleukin-8, PF4, ENA-78, GCP-2, PBP, CTAP-III, β-thromboglobulin, NAP-2, C10, DC-CK1, CKα1, CKα2, MCP-1, MCP-2, MCP-3, MCP-4, MIP-1α, MIP-1β, lymphotactin, ATAC, eotaxin, eotaxin-2, I-309, HCC-1, HCC-2, HCC-3, LARC/MIP-3α, MIP-3β, PARC, TARC, 6Ckine, ELC, SLC, CKβ4, CKβ6, CKβ7, CKβ8, CKβ9, CKβ11, CKβ12, CKβ13, and CX3C.

2. The composition of claim 1 wherein the amino-terminal-modified chemokine comprises at least one methionine covalently attached to the amino terminus of the chemokine.

3. The composition of claim 1 wherein the amino-terminal-modified chemokine comprises at least one aminooxypentane residue covalently attached to the amino terminus of the chemokine.

4. The composition of claim 1 wherein the amino-terminal-modified chemokine comprises at least one GroHEK peptide covalently attached to the amino terminus of the chemokine.

5. (Amended) A composition comprising an isolated polynucleotide encoding an amino-terminal-modified chemokine, wherein the amino-terminal-modified chemokine comprises at least one methionine, at least one aminooxypentane residue, or at least one GroHEK peptide covalently attached to the amino terminus of the chemokine, and wherein the amino-terminal-modified chemokine is derived from a chemokine selected from the group consisting of SDF-1α, SDF-1β, IP-10, Mig, GROα, GROβ, GROγ, interleukin-8, PF4, ENA-78, GCP-2, PBP, CTAP-III, β-thromboglobulin, NAP-2, C10, DC-CK1, CKα1, CKα2, MCP-1, MCP-2, MCP-3, MCP-4, MIP-1α, MIP-1β, lymphotactin, ATAC, eotaxin, eotaxin-2, I-309, HCC-1, HCC-2, HCC-3, LARC/MIP-3α, MIP-3β, PARC, TARC, 6Ckine, ELC, SLC, CKβ4, CKβ6, CKβ7, CKβ8, CKβ9, CKβ11, CKβ12, CKβ13, and CX3C.

6. (Amended) The composition of claim 1 wherein the polynucleotide is selected from the group consisting of:

(a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:6;

(b) a polynucleotide comprising the nucleotide sequence of the protein-coding sequence of the

polynucleotide encoding met-hDSF-1α deposited under accession number ATCC 98506;

(c) a polynucleotide encoding an amino-terminal-modified chemokine comprising the amino acid sequence of SEQ ID NO:10;

(d) a polynucleotide encoding a protein comprising an amino-terminal fragment of the amino acid sequence of SEQ ID NO: 10;

(e) a polynucleotide comprising a nucleotide sequence complementary to any one of the polynucleotides specified in (a)-(d) above; and

(f) a polynucleotide capable of hybridizing at either (i) 4xSSC at 65°C or (ii) 50% formamide and 4XSSC at 42°C, to any one of the polynucleotides specified in (a)-(e) above.

7. (Amended) The composition of claim 1 wherein the polynucleotide is selected from the group consisting of:

(a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:7;

(b) a polynucleotide comprising the nucleotide sequence of the protein-coding sequence of the polynucleotide encoding met-hDSF-1β deposited under accession number ATCC 98506;

(c) a polynucleotide encoding an amino-terminal-modified chemokine comprising the amino acid sequence of SEQ ID NO:11;

(d) a polynucleotide encoding a protein comprising an amino-terminal fragment of the amino acid sequence of SEQ ID NO: 11;

(e) a polynucleotide comprising a nucleotide sequence complementary to any one of the polynucleotides specified in (a)-(d) above; and

(f) a polynucleotide capable of hybridizing at either (i) 4xSSC at 65°C or (ii) 50% formamide and 4XSSC at 42°C, to any one of the polynucleotides specified in (a)-(e) above.

8. (Amended) The composition of claim 1 wherein the polynucleotide is selected from the group consisting of:

(a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:8;

(b) a polynucleotide comprising the nucleotide sequence of the protein-coding sequence of the polynucleotide encoding GroHEK/hSDF-1α deposited under accession number ATCC 98508;

(c) a polynucleotide encoding an amino-terminal-modified chemokine comprising the amino acid sequence of SEQ ID NO:12;

(d) a polynucleotide encoding a protein comprising an amino-terminal fragment of the amino acid sequence of SEQ ID NO: 12;

(e) a polynucleotide comprising a nucleotide sequence complementary to any one of the polynucleotides specified in (a)-(d) above; and

(f) a polynucleotide capable of hybridizing at either (i) 4xSSC at 65°C or (ii) 50% formamide and 4XSSC at 42°C, to any one of the polynucleotides specified in (a)-(e) above.

9. (Amended) The composition of claim 1 wherein the polynucleotide is selected from the group consisting of:

(a) a polynucleotide comprising the nucleotide sequence of SEQ ID NO:9;

(b) a polynucleotide comprising the nucleotide sequence of the protein-coding sequence of the polynucleotide encoding GroHEK/hSDF-1β deposited under accession number ATCC 98509;

(c) a polynucleotide encoding an amino-terminal-modified chemokine comprising the amino acid sequence of SEQ ID NO:13;

(d) a polynucleotide encoding a protein comprising an amino-terminal fragment of the amino acid sequence of SEQ ID NO: 13;

(e) a polynucleotide comprising a nucleotide sequence complementary to any one of the polynucleotides specified in (a)-(d) above; and

(f) a polynucleotide capable of hybridizing at either (i) 4xSSC at 65°C or (ii) 50% formamide and 4XSSC at 42°C, to any one of the polynucleotides specified in (a)-(e) above.

10. A composition of claim 1 wherein the polynucleotide is operably linked to an expression control sequence.

11. The composition of claim 10 wherein the polynucleotide is further operably to a sequence directing secretion if the expressed amino-terminal-modified chemokine.

12. A host cell transformed with a composition of claim 10.

13. The host cell of claim 12, wherein the cell is a mammalian cell.

14. A process for producing an amino-terminal-modified chemokine, which comprises:

(a) growing a culture of the host cell of claim 12 in a suitable culture medium; and
(b) purifying the amino-terminal-modified chemokine from the culture.

17. A composition comprising an isolated polynucleotide encoding an amino-terminal-modified chemokine, wherein the chemokine binds the fusin/CXCR4 chemokine receptor.

18. A composition comprising an isolated polynucleotide encoding an amino-terminal-modified chemokine, wherein the amino-terminal-modified chemokine is a more effective inhibitor of HIV infection than the corresponding unmodified chemokine.